

IN THE CLAIMS:

Please cancel claims 2-90, and add new claims 91 to 120 shown below:

Sub R ✓ 91. A composition comprising transgenic totipotent bovine CICM cells of a CICM cell line that express a transgene, and also comprising cells of the same CICM cell line that do not express the transgene.

92. The composition of claim 91, wherein the transgenic CICMs are genetically modified by insertion into their genome of a heterologous DNA.

C3 93. The composition of claim 91, wherein the transgenic CICMs are genetically modified by insertion into their genome of a heterologous DNA construct comprising a promoter operably linked to a gene encoding a protein.

94. The composition of claim 93, wherein the heterologous DNA construct comprises a promoter operably linked to a gene encoding a protein that is a selectable marker of the CICM cells.

95. The composition of claim 94, wherein the selectable marker protein is selected from the group consisting of β -galactosidase (β -GAL), neomycin phosphotransferase (NEO), dihydrofolate reductase (DHFR), aminoglycoside phosphotransferase (APH), xanthine-guanine phosphoribosyltransferase (XGPRT), and β -GEO (a fusion of β -GAL and NEO genes).

96. The composition of claim 93, wherein the heterologous DNA construct comprises a promoter operably linked to a differentiation-inhibiting (DI) gene.

97. The composition of claim 96, wherein the DI gene encodes a differentiation-inhibiting product selected from the group consisting of DI T-antigen proteins, DI oncogene products, OCT-3, LIF, and LIF receptor.

98. The composition of claim 93, wherein the promoter is selected from the group consisting of cytomegalovirus (CMV) promoter, phosphoglycerate kinase (PGK) promoter, mammary (MAM) promoter, reCMV promoter, and chicken beta actin promoter.

99. The composition of claim 93, wherein the promoter is an inducible promoter.

100. The composition of claim 99, wherein the inducible promoter is selected from the group consisting of tetracycline promoter, interferon promoter, steroid promoter, and metallothionein promoter.

101. The composition of claim 91, wherein the CICMs of the CICM cell line stably exhibit the following properties:

- (a) small cytoplasmic/nuclear volume ratio ranging from 10/90 to 50/50;
- (b) observable cytoplasmic vesicles; and
- (c) individual cells ranging from about 10 μm to 20 μm in diameter.

102. The composition of claim 91, wherein the CICMs of the CICM cell line are alkaline protease positive and cytokeratin 18 negative.

103. The composition of claim 91, which further comprises a feeder layer.

104. The composition of claim 103, wherein said feeder layer comprises a fibroblast feeder layer.

105. The composition of claim 104, wherein the CICMs of the CICM cell line have physical contact with the feeder layer.

106. A composition comprising transgenic totipotent porcine CICM cells of a CICM cell line that express a transgene, and also comprising cells of the same CICM cell line that do not express the transgene.

107. The composition of claim 106, wherein the transgenic CICMs are genetically modified by insertion into their genome of a heterologous DNA.

108. The composition of claim 106, wherein the transgenic CICMs are genetically modified by insertion into their genome of a heterologous DNA construct comprising a promoter operably linked to a gene encoding a protein.

109. The composition of claim 108, wherein the heterologous DNA construct comprises a promoter operably linked to a gene encoding a protein that is a selectable marker of the CICM cells.

110. The composition of claim 109, wherein the selectable marker protein is selected from the group consisting of β -galactosidase (β -GAL), neomycin phosphotransferase (NEO), dihydrofolate reductase (DHFR), aminoglycoside phosphotransferase (APH), xanthine-guanine phosphoribosyltransferase (XGPRT), and β -GEO (a fusion of β -GAL and NEO genes).

111. The composition of claim 108, wherein the heterologous DNA construct comprises a promoter operably linked to a differentiation-inhibiting (DI) gene.

112. The composition of claim 111, wherein the DI gene encodes a differentiation-inhibiting product selected from the group consisting of DI T-antigen proteins, DI oncogene products, OCT-3, LIF, and LIF receptor.

113. The composition of claim 108, wherein the promoter is selected from the group consisting of cytomegalovirus (CMV) promoter, phosphoglycerate kinase (PGK) promoter, mammary (MAM) promoter, reCMV promoter, and chicken beta actin promoter.

114. The composition of claim 108, wherein the promoter is an inducible promoter.

115. The composition of claim 114, wherein the inducible promoter is selected from the group consisting of tetracycline promoter, interferon promoter, steroid promoter, and metallothionein promoter.

116. The composition of claim 106, wherein the CICMs of the CICM cell line stably exhibit the following properties:

- (a) small cytoplasmic/nuclear volume ratio ranging from 10/90 to 50/50;
- (b) observable cytoplasmic vesicles; and
- (c) individual cells ranging from about 10 μm to 20 μm in diameter.

117. The composition of claim 106, wherein the CICMs of the CICM cell line are alkaline protease positive and cytokeratin 18 negative.

118. The composition of claim 106, which further comprises a feeder layer.

119. The composition of claim 118, wherein said feeder layer comprises a fibroblast feeder layer.

120. The composition of claim 119, wherein the CICMs of the CICM cell line have physical contact with the feeder layer.